CLAIMS

1. A process of obtaining a species which inhibits the activity of a polypeptide, comprising:
    a. contacting an active polypeptide fragment of the polypeptide with the species;
    b. determining if the species interacts with the active polypeptide fragment; and
    c. determining if the species inhibits the activity of the polypeptide.

2. The process of claim 1 wherein the species is a chemical compound.

3. The process of claim 1 wherein the species is a polypeptide.

4. The process of claim 1 wherein the species is a polynucleotide.

5. The process of claim 1 wherein the species is imprinted on a microarray.

6. The process of claim 1 wherein the polypeptide is known to have an effect in a disease state or condition.

7. The process of claim 1 wherein the species is a chemical compound imprinted on a microarray and the active polypeptide fragment is a dominant polypeptide fragment.

8. The process of claim 1 wherein the species is a chemical compound imprinted on a microarray and the active polypeptide fragment is a polypeptide fragment comprising an active site of one or more polypeptide of interest.

9. A process of obtaining a species that modulates a phenotype comprising:
   (a) contacting a microarray comprising an array of species with a plurality of active polypeptide fragments;
   (b) examining the microarray for a positively reacting species;
   (c) obtaining one or more species which react positively; and
   (d) examining the effect of the species of step (c) on a cell exhibiting the phenotype.

10. The process of claim 9 further comprising:
   (e) identifying the active polypeptide fragment which caused the species to react;
   (f) obtaining a parent polypeptide; and
   (g) examining the effect of the species on the parent polypeptide.

11. The process of claim 9 further comprising:
   (e) identifying the active polypeptide fragment which caused the species to react;
   (f) obtaining a parent polypeptide; and
   (g) examining the effect of the parent polypeptide on the phenotype.

12. The process of claim 9 wherein one or more of the active polypeptide fragments of step (a) are associated with the phenotype exhibited by the cell of step (d).

13. The process of claim 9 wherein the active polypeptide fragments of step (a) are tagged.

14. The process of claim 9 wherein the species imprinted on the microarray are chemical compounds.

15. The process of claim 9 wherein the species imprinted on the microarray are polypeptides.

16. The process of claim 9 wherein the species imprinted on the microarray are polynucleotides.

17. A kit for performing the process of claim 9 which comprises:

a. a microarray; and

b. a plurality of active polypeptide fragments.

18. The kit of claim 17 wherein the plurality of active polypeptide fragments are associated with a phenotype.

19. A process of obtaining a small molecule polypeptide inhibitor comprising:

a) screening a plurality of small molecules with a polypeptide probe;

b) screening the plurality of small molecules of step a) with a second polypeptide probe comprising the polypeptide probe of step a) further comprising one or more amino acid mutation;

c) comparing the small molecule binding profile of the probe of step b) to that of the probe of step a); and

d) identifying one or more small molecules from the plurality of small molecules that bind to the probe of step a) but not to the probe of step b).

20. The process of claim 19 wherein the plurality of small molecules is imprinted on a microarray.

21. The process of claim 19 wherein the mutation of step b) is randomly generated.

22. The process of claim 19 wherein the mutation of step b) is in a region of the polypeptide known to be involved in a biological activity.

23. The process of claim 22 wherein the biological activity is selected from the biological activity group consisting of: enzymatic activity, protein-protein interaction, protein-DNA interaction, protein-chemical interaction, protein-carbohydrate interaction, protein modification, localization signal, ATP/GTP carrying site, and ion binding.

24. The process of claim 22 wherein the mutation of step b) is in a region of the polypeptide known to be involved in an enzymatic activity.